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(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): STEK, Aalbert [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). JANSSEN, Anthonius, P., G., E. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: MAK, Theodorus, N. et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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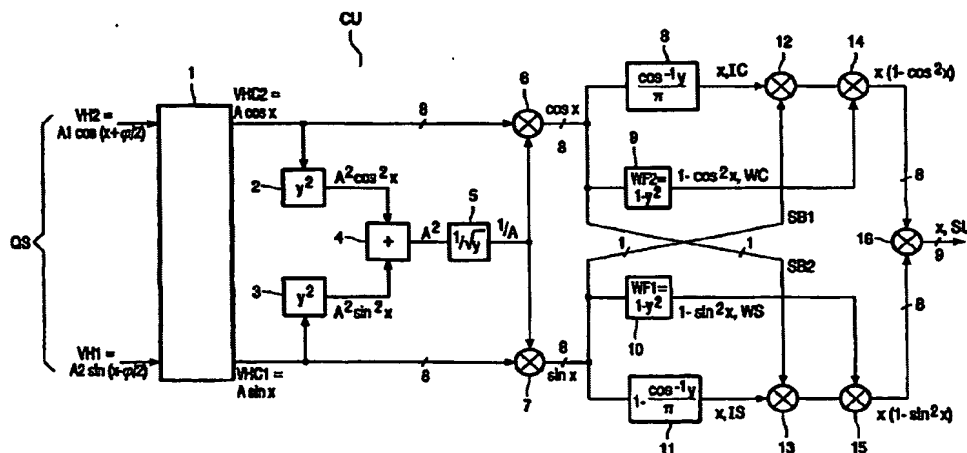
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(54) Title: POSITION DETERMINING



(57) **Abstract:** A position determining system for determining a position of a rotor of a rotating motor (M) has sensors (HS1, HS2) that are coupled to the rotor. The sensors (HS1, HS2) generate, in response to a rotation of the rotor, a quadrature signal (QS) that has a sine component (VH1) and a cosine component (VH2). The position determining system calculates (CU) a sum (A^2) of a squared value of the sine component ($A^2 \sin^2 x$) and a squared value of the cosine component ($A^2 \cos^2 x$). An amplitude correction factor (A) is calculated as the squared root of the sum (A^2). An amplitude corrected sine component ($\sin(x)$) is obtained by dividing the sine component ($A \sin(x)$) by the amplitude correction factor (A). An amplitude corrected cosine component ($\cos(x)$) is obtained by dividing the cosine component ($A \cos(x)$) by the amplitude correction factor (A).